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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,409	01/03/2002	Michael Allen Yudkowsky	42390p13063	7057

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/038,409

Applicant(s)

YUDKOWSKY, MICHAEL ALLEN

Examiner

Angela A Armstrong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. In view of the Appeal Brief filed on January 20, 2005, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-12 and 14-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goronzy et al (EP 1022725 A1) in view of Murveit (US Patent No. 6,766,295)  
Goronzy discloses a system for the selection of acoustic models using speaker verification.

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4. Regarding claim 1, Goronzy discloses determining an identity of a speaker through a networked work system at col. 3, lines 1-9 and 35-46, since the networked system (col. 3, lines 2-3) checks the identity of the speaker every time the speaker changes, which requires use of some form of identification information to output to the verification module (4). Additionally, Goronzy discloses attempting to locate, based on the identity of the speaker, a voice model for speaker, at col. 3, lines 53-58; and retrieving from a storage area the voice model for the speaker if the voice model for the speaker is located, at col. 3, line 53 continuing to col. 4, line 2.

Goronzy does not provide specific details of how the speech recognition and/or speaker verification is implemented within a networked system. However, providing speech recognition and/or speaker verification with a network was well known in the art.

Murveit teaches adaptation of a speech recognition system across multiple remote sessions with a speaker in which for each speaker to remotely access the speech recognition system a modified acoustic model is formed and stored with the speaker's unique identification (col. 2, line 3 to col. 3, line 5) via a communications network, local area network, or wide area network (Figure 2; col. 3, lines 27-39). Murveit teaches the system is advantageous in that as the user accesses and uses the system; the acoustic model is adapted to more accurately reflect the speaker thereby improving the accuracy of speech recognition for a speech recognition system.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to implement the networked recognition and adaptation system of Murveit in the system of Goronzy, so as to provide improved speech recognition accuracy for users of applications though remote communications systems.

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5. Regarding claim 2, Goronzy discloses the voice model comprises a speaker dependent voice model at col. 3, line 53 continuing to col. 4, line 2.
6. Regarding claim 3, Goronzy and disclose wherein determining the identity of the speaker over the network comprises using identification information received from the speaker over the network to determine the identity of the speaker, at col. 3, line 1 continuing to col. 4, line 2.
7. Regarding claim 4, Goronzy discloses receiving from a device in the network identifying data regarding the speaker, at col. 3, line 39 continuing to col. 4, line 2; determining the identity of the speaker based on the identifying data regarding the speaker, at col. 3, line 39 continuing to col. 4, line 2.
8. Regarding claim 5, Goronzy discloses wherein the storage area comprises an internal storage area containing speaker-dependent voice models for multiple persons, at col. 3, line 58 continuing to col. 4, line 2.
9. Regarding claim 6, Goronzy discloses wherein the storage area comprises an external storage area accessible over the network, at col. 3, line 58 continuing to col. 4, line 2.
10. Regarding claim 7, Goronzy discloses wherein the output data comprise phonemes, at col. 3, line 39.
11. Regarding claim 8, Goronzy discloses receiving an utterance from the speaker at col. 3, lines 39-43; using the voice model to extract phonemes from the utterance at col. 3, lines 39-52; and transmitting the phonemes over the network to the speech-recognition system, at col. 3, lines 39-43.
12. Regarding claim 9, Goronzy discloses wherein the utterance comprises one or both of the vocalized words and vocalized sounds, at col. 3, lines 39-43.

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13. Regarding claim 10, Goronzy discloses receiving from the speech recognition system contents of a recognized utterance of the speaker, at col. 3, lines 43-58; revising the voice model for the speaker based on the contents of the recognized utterance, at col. 3, lines 53-58; col. 4, lines 30-40.

14. Regarding claim 11, Goronzy discloses wherein the output data comprise a voice model for the speaker, at col. 3, lines 53-58; col. 4, lines 30-40.

15. Regarding claim 12, Goronzy discloses further comprising transmitting the voice model over the network to the speech-recognition system, at col. 3, lines 53-58.

16. Regarding claim 14, Goronzy discloses retrieving a speaker-independent voice model if failing to locate the voice model for the speaker, at col. 4, lines 30-40; receiving an utterance from the speaker, at col. 4, lines 19-21; using the speaker-independent voice model to extract phonemes from the utterance, at col. 3, lines 53-58; transmitting the phonemes over the network to a speech-recognition system, at col. 3, lines 43-52; receiving from the speech-recognition system contents of a recognized utterance of the speaker, at col. 3, lines 46-58 and col. 4, lines 17-40; and generating a voice model for the speaker based on the contents of the recognized utterance, at col. 4, lines 17-40.

17. Regarding claims 15-30 claims 15-30 are similar in scope and content to claims 1-12 and 14 and are therefore rejected under similar rationale.

18. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goronzy and Murveit in view of Ellis et al, "Tandem Acoustic Modeling in Large Vocabulary Recognition",

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(ICASSP '01). 2001 IEEE International Conference on Acoustics, Speech, and Signal Processing, 2001 Proceedings, vol. 1, pages 517-520.

19. Regarding claim 13, Goronzy and Murveit do teach implementation of Aurora feature extraction. However, implementation of Aurora features was well known in the art.

In a similar field of endeavor, Ellis teaches a system of tandem acoustic modeling in a large vocabulary recognition system, and specifically describes the advantages of using Aurora data in a recognition system since the system involves recognizing data in a wide range of noisy backgrounds.

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the system of Goronzy to implement Aurora feature processing, for the purpose of providing a recognition system that is able to recognize data in noisy backgrounds, as taught by Ellis.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM:

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angela A Armstrong  
Examiner  
Art Unit 2654

AAA  
April 13, 2005

*Angela A. Armstrong*